

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

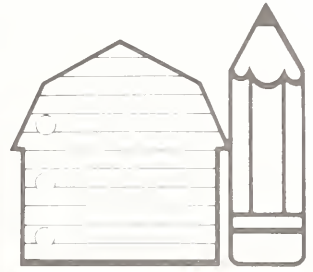
Q5-333
A35

02

Ag in the Classroom

Notes

United States
Department of
Agriculture



A bi-monthly newsletter for the Agriculture in the Classroom program. Sponsored by the U.S. Dept. of Agriculture to help students understand the important role of agriculture in the United States economy. For information, contact: Shirley Traxler, Director, Room 317-A, Administration Bldg., USDA, Washington, D.C. 20250-2200. 202/447-5727

Nov./Dec. 1989
Vol. 6, No. 7

Reaching Out To Preschool Teachers in Massachusetts

By the time some children reach kindergarten, they may be in their fourth year of attending school. The Massachusetts AITC program has begun to develop materials appropriate for preschoolers and to train preschool teachers in ways they can integrate agriculture into their regular curriculum.

"The earlier we can work with children to help them develop an awareness of agriculture, the better," says Wayne Hipsley, an Extension

Specialist for Classroom Programs and the Massachusetts state contact for AITC. At the request of preschool teachers in Franklin County, he began conducting teacher workshops for preschool teachers. Several more are planned for the coming year.

"We had no agriculture materials designed just for preschool," Hipsley says. "We're adapting activities developed for the primary
continued on page 6

Minnesota Launches Teaching Awards Program, Develops Model Learner

"Teachers are doing wonderful things — but you won't hear about them unless you ask," says Al Withers, Program Director of Minnesota Agriculture in the Classroom (M-AITC). That was the reason for launching the "Excellence in Integrating Agriculture Teaching" Awards Program.

The awards program is designed to honor outstanding teaching practices of educators, encourage integration of agriculture and thus increase ag literacy, and provide a valuable financial incentive for educators. In the 1988-89 school year, M-AITC awarded \$2,200 to seven teachers throughout the state for their lessons, units, or courses that effectively integrated agriculture into one or more key subject areas.
continued on page 7



John Doyle, center, a sixth grade educator at Marshall (MN) Middle School, accepts his first place award in the elementary category of the new Excellence in Integrating Agriculture teaching awards program sponsored by Minnesota Agriculture in the Classroom. Congratulating Doyle are Al Withers, left, Program Director; and Dave Sorenson, Board Chair, M-AITC.



Oregon: Creative Skills Conference

Agriculture has become an increasingly technical profession. Creative and inventive thinking skills are required for anyone who wants to be a success. So when Oregon Agriculture in the Classroom learned about a National Creative and Inventive Thinking Skills Conference expected to attract several hundred educators, it seemed like a perfect opportunity to help teachers understand how agriculture is changing.

"I believe that farmers are probably the most inventive people in the entire country," says Loydee Grainger, chairperson of Oregon's AITC Board. "They're used to solving problems

everyday." But, Grainger adds, the public perception of agriculture doesn't always fit with the reality. By participating in the conference, the Oregon AITC board felt they could also help change attitudes towards agriculture.

The Creative and Inventive Thinking Skills Conference in Portland, Oregon, October 26-28 attracted more than 800 educators — including teachers, administrators, and curriculum specialists. Nearly all were particularly concerned about finding ways to educate gifted and talented students.

Oregon AITC set up and staffed a booth in the exhibit area. In addition to showing Oregon's AITC materials, the booth also included samples and order forms for materials developed in several other states. "Reactions of the conference participants were interesting," said Grainger. "Some obviously wondered why agriculture was represented at a thinking skills conference. But others got excited right away. We reached a number of educators we wouldn't have reached in any other way."

Sixty percent of the conference participants came from the Pacific Northwest. Others came from as far away as Florida, New York, and Texas. During the three-day conference, more than 150 copies of the Resource Guide were distributed to educators.

Grainger, a teacher, says she believes educators are attracted to the AITC materials because "they offer something new. It's always a challenge to make learning exciting," she says, "and Ag in the Classroom helps meet that challenge."

Marlon, a student in Mrs. Annette Reid's kindergarten class at Davis Elementary School, Montgomery, Alabama, waters a pine seedling. Marlon and his classmates planted the seedlings as part of their study of Alabama agriculture. For a story on the Alabama AITC program, see the Sept./Oct. issue.



Spotlight

A Garden Grows in Queens



The title of the book may have been *A Tree Grows in Brooklyn*, but thanks to a dynamic third-grade teacher in New York City, a sequel might be titled, "A Garden Grows in Queens." Rhoda Gilbert, a teacher at P.S. 214 in Queens District 25, has introduced her students to agriculture — and gotten them so excited that they came to school during summer vacation.

Gilbert was first introduced to the idea of teaching about agriculture in her urban classroom when Betty Wolanyk, coordinator of AITC in New York, presented a workshop for teachers in her district. "We were looking for avenues to get agriculture introduced into the schools in New York City," Wolanyk says. "Rhoda was looking for ways to make her teaching more exciting. It was a good match."

Gilbert says one of her goals in teaching is to make students more aware of the environment. She decided to show let students learn about the important balance of nature by providing them small plants to grow in the classroom. When she saw how excited they were about caring for the plants, Gilbert took her students outside to plant a garden.

"We planted a wide variety of vegetables — everything from cabbages and carrots to kale.

For many of the children, it was their first introduction to where their food comes from," Gilbert said.

When school ended, students' excitement with the garden didn't. All through the summer, children returned to the school to tend the garden, to pull up weeds, and to make sure their vegetables were getting enough water. "Their garden looked better than mine," Gilbert confesses.

This year, Gilbert has a new class of third graders. "When I didn't start my agriculture activities right away," she says, "both the children and the Parents' Association asked me when we would start learning about agriculture." And because so many of Gilbert's "graduates" in fourth grade want to remain involved with agriculture, Gilbert plans to start a 4-H club at the school.

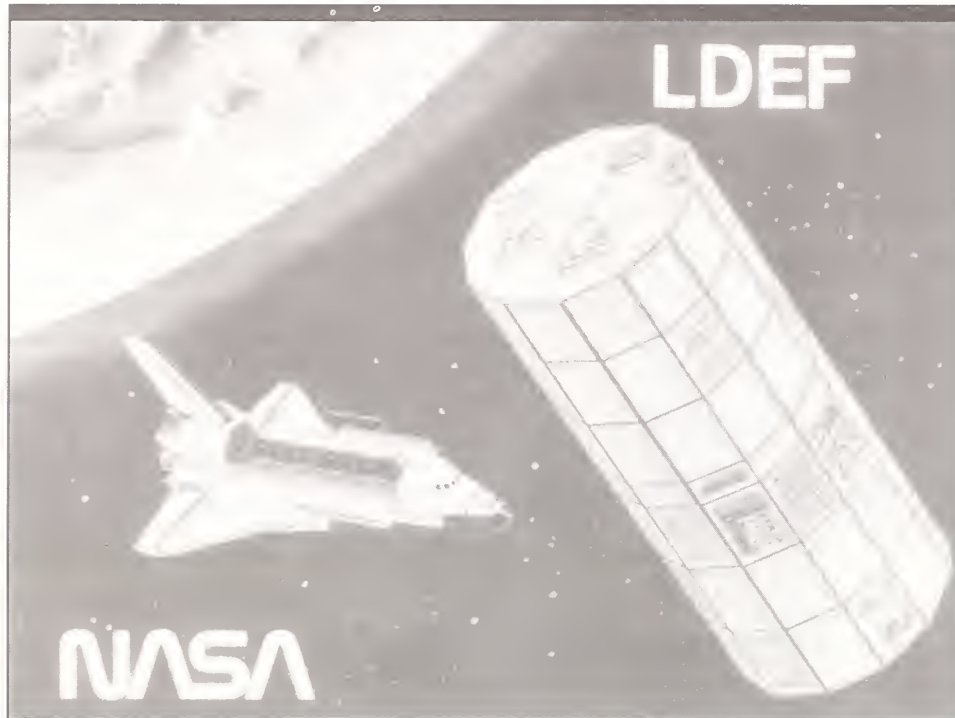
"For urban students, learning about agriculture is exciting — and even a little glamorous," says Betty Wolanyk. Gilbert says her students have learned more than just the facts about agriculture. Many of them, she says, are now considering making a career in agriculture.

Marie Jo Smerichniak, back left, Science Coordinator for District 25, and teacher Rhoda Gilbert with students from P.S. 214 with their garden.



Seeds From Space Available For U.S. Classrooms

The Space Shuttle Columbia's December mission will launch the SEEDS program, providing U.S. students the opportunity to experiment with seeds that have spent more than five years in space.



NASA Administrator Richard H. Truly said, "Because this is the first opportunity for long-duration space exposure of living tissues, every classroom experiment will be significant. I hope millions of students will experience this hands-on, one-of-a-kind experiment and learn that science is fun."

Following preliminary growth tests conducted by plant scientists,

A new NASA program hopes to foster the development of young scientists by providing students the opportunity to study tomato seeds that have spent more than five years in space. The Space Exposed Experiment Developed for Students, or SEEDS, is the first experiment ever to study the effects of long-term space exposure on living tissue.

In 1984, a NASA Space Shuttle mission deployed 12.5 million tomato seeds in the Long Duration Exposure Facility, an 11-ton satellite. When the Space Shuttle Columbia is launched on December 18, one of its missions will be to retrieve the satellite.

Space Exposed Experiment Developed for Students

SEEDS



NASA

National Aeronautics and
Space Administration

the seeds will be distributed to educators in late February. Each seed kit will contain 50 flight seeds and 50 control seeds, instructional materials and computerized data collection and reporting booklets.

Students on four educational levels will have the opportunity to participate in SEEDS — grades 5-6, 7-9, 10-12, and higher education. Students will design and conduct their own experiments. Possibilities include comparing flight seeds and control seeds for

- germination rates
- germination times
- seed embryos
- seedling vigor
- phototropic responses
- fruit products.

Tomato seeds were chosen because students in all geographic areas are familiar with the plant; it is relatively simple to germinate and grow; it is small enough to permit a large number to be flown; and it has proven to be very hardy.

There is still time to participate in the SEEDS project. Contact NASA for further information, including the grade level of the students who will be using the seeds. Write

NASA SEEDS Project
Educational Affairs Division
Code XEO
NASA
Washington, DC 20546.

Indiana Holds Regional Workshops

NOV./DEC. 1989

John Chapman, better known as "Johnny Appleseed," traveled far from his home in Indiana to plant seeds that would later grow into apple trees. This fall, the Indiana Agriculture Awareness Council (IAAC) followed in Chapman's footsteps by establishing a series of five regional agricultural education workshops designed to plant the "seeds" of new curriculum ideas for fourth grade teachers across the state.

The workshops were designed to premiere the newly revised 4th Grade Resource Guide, which has been designed to be used in conjunction with teaching Indiana history. The guide focuses on Indiana agriculture, its importance in the state's development and heritage, and its current impact.

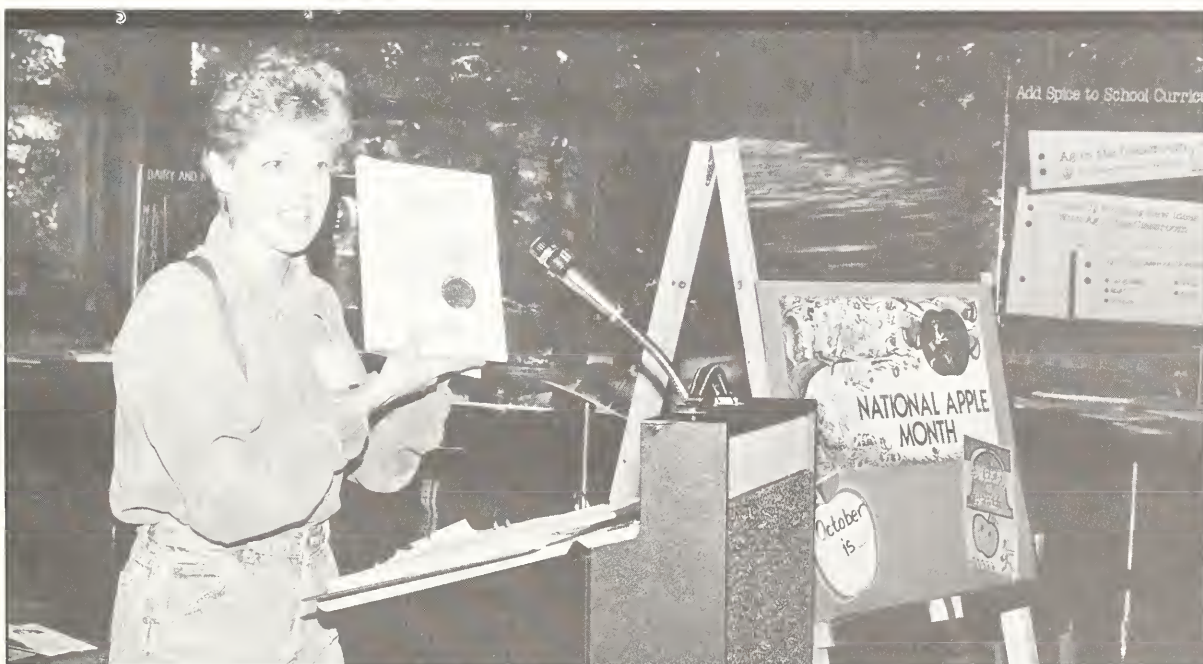
The "hands-on" workshop offered fourth grade teachers an opportunity to participate in a number of mini-workshops. Jane "Abby" Abbott, former state contact for AITC in Indiana, dressed as "Johnny Appleseed" and suggested nutritional and educational activities tied to the apple industry. Linda Dunn, from the Office of School Assistance at the Indiana Department of Education, outlined ways teachers could incorporate lessons on Indiana authors, Indiana history, and Indiana agriculture. Joe Wright, also from the Office of School Assistance, brought educators outside to take a closer look at the soil and the life it supports.

Each teacher who attended the conference received a copy of the new resource guide. The guide was field tested with 50 teachers and contains information on agriculture economics,



Teachers take a close-up look at the earth in a workshop titled "Experiencing the Earth" presented by Joe Wright of the Indiana Department of Education.

Indiana history, pioneer farming, soil conservation, and general agriculture. Also included is an extensive appendix listing other resources and reading materials, as well as information on computer programs available.



Jane "Abby" Abbott, dressed as Johnny Appleseed, explains how teachers can incorporate activities about apples into their curriculum.

Photos: Martin Ross, Indiana Agri-News.

Scouts Learn About Agribusiness at National Jamboree

At the NGFA Exhibit, Scouts learned that many of their favorite foods were made from grain.

Last summer, when more than 30,000 Scouts from across the nation gathered outside Washington, D.C., for the annual Scout Jamboree, they had an opportunity to learn about America's largest industry ... and complete the requirements for a merit badge at the same time. It was all part of an exhibit sponsored by the National Grain and Feed Association (NGFA) in the Jamboree's Merit Badge Midway.



The NGFA exhibit, designed to help Scouts meet four of the eight requirements for the Agribusiness merit badge, used the theme "Grain — the Foundation of Feed and Food." The exhibit took Scouts through the process that transforms raw commodities into final consumer products.

During the Jamboree, nearly 3,500 Scouts used the exhibit's resources to work on their Agribusiness merit badge. Scouts first learned about agricultural production by seeing seeds, germinated seeds, and three-week-old plants of 20 different grains, including corn, soybeans,

canola, barley, and five varieties of wheat. Next came a "hands-on" display where Scouts collected samples of 12 kinds of grain — corn, sorghum, rye, barley, soybeans, oats, sunflowers, flaxseed, canola, and five varieties of wheat.

Later sections of the exhibit showed Scouts the inner workings of a grain elevator, demonstrated grain processing, and illustrated some of the products that use grain products. All Scouts also received information on careers in agribusiness.

"When the Scouts developed the Agribusiness merit badge, NGFA helped identify the important content that should be included," said Rachel Vining, Information and Communications Specialist for NGFA. "So in a way, our involvement at the Jamboree really took us full circle."

Scouts had an opportunity for some "hands-on" examination of various grains.



Photos: National Grain and Feed Association

Massachusetts Preschool Teachers

continued from page 1

grades." He adds that the biggest difference between preschoolers and primary school students is their attention span. "Activities have to be short, tightly focused, and have an immediate payoff to hold the interest of young children."

Preschoolers now can learn a counting song that also teaches them about the cranberry industry. They can grow sprouts to see how seeds germinate. And they can visit farmers in their area who are interested in talking about agriculture — courtesy of a directory developed by the Massachusetts Farm Bureau.

Hipsley has found that preschool educators are particularly receptive to the training and resources available through the Massachusetts AITC program. "There is no organized method of professional improvement for preschool teachers," he notes. "That presents us with a unique opportunity to get involved." In addition, he adds, in a time when so many children are enrolled in school at a very young age, "we have an obligation and a responsibility to see that preschool teachers have the same resources and materials available to teachers of older children."

New ARS Discoveries

Saving Time . . . and Lives

NOV./DEC. 1989



new product developed by U.S. Department of Agriculture scientists: frozen concentrated milk. The new product can be kept in the freezer until it's needed.

Developed by a food technologist working for the Agricultural Research Service (ARS), frozen concentrated milk is one of 35 inventions patented by the agency. "We have had 418 patents granted over the last 10 years," said R. Dean Plowman, ARS Administrator. "These inventions involve new and higher quality products, prevention of diseases in plants and animals, and natural control of pests that harm our environment and food supply."

Although frozen concentrated milk might sound a little farfetched, says Plowman, so did past agency inventions like potato flakes and frozen concentrated orange juice. All are examples of patented research discoveries that

have gone into the marketplace — "and that is something we want to see grow in the future."

Other ARS patented research has led to the following developments:

- Cancer patients may have greater access to taxol, a drug used in clinical trials. An ARS research geneticist has developed a way to mass produce the drug.
- Consumers looking for a strong source of calcium and protein can soon take advantage of a new yogurt-like pudding. Made from non-fat dry milk, sugar, rice flour, gums, and other ingredients, the pudding was developed by an ARS food technologist.
- To curb the threat of salmonella contamination, ARS microbiologists invented and are patenting a bacteria injection method that heads off food poisoning before the chick leaves the egg.

"ARS research is committed to solving agricultural problems that affect farmers, workers, and consumers," Plowman said.

"Our patented research is the keystone of the agency's technology transfer program."

Minnesota Launches Teaching Awards Program

continued from page 1

Winning entries were drawn from a variety of curricular areas for grades 3-8. Topics included communities, geography, history, economics, soils, land and water, and current events.

As a result of the contest, Withers notes, M-AITC now has added to the curricular resources it can provide to other teachers around the state. "Both M-AITC and the teachers are winners," he concludes.

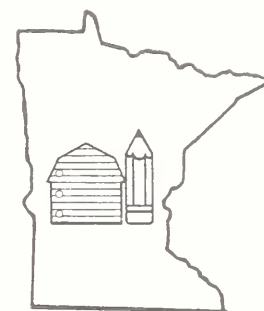
M-AITC has also taken a leadership role in the statewide educational reform movement by developing Model Learner Outcomes for Integrating Agricultural Awareness. "In Minnesota, there is no state-mandated curriculum, and the state does not select textbooks for local school districts," Withers says. Instead, the State Department of Education has moved to develop "learner outcomes" for a variety of curricular areas. "This allows districts flexibility in determining how they will achieve the objectives, but still sets state standards for what students need to know," Withers says.

Although agriculture was not one of the content areas originally included, Withers says that M-AITC wanted to be "on the front burner" of the reform movement. In cooperation with the State Department of Education and M-AITC, a diverse committee of agriculture and education interests met to develop a list of the most important things students need to know about agriculture.

Learner outcomes focus on five key areas:

- General literacy (What is agriculture? Why is it important to me?)
- Historical and cultural significance
- Environmental interdependence and impact
- Global economics
- Careers.

The State Department of Education has approved the learner outcomes, which are now being printed for statewide distribution. For a copy of the model learner outcomes, contact Al Withers, M-AITC, 90 West Plato Boulevard, St. Paul, MN 55107.



Ag in the Classroom — State Contacts

The individuals listed here are key reference persons in each state. If you have any questions, want to make reports, or need more information about your state's Ag in the Classroom program, contact the following:

Alabama
Ms. Jane Alice Lee
c/o Brenda Summerlin
Alabama Department of
Agriculture and Industries
P.O. Box 3336
Montgomery, Alabama 36193
(205) 261-5872
(Home) (205) 272-2611

Alaska
Mr. Ted Berry
Mat-Su College
University of Alaska
P.O. Box 2889
Palmer, Alaska 99545
(907) 475-9752

Arizona
Ms. Sue Whitsitt
4341 E. Broadway
Phoenix, Arizona 85040
(602) 255-4456

Arkansas
Dr. Phillip Besonen
Center for Economic Education
GE 310
University of Arkansas
Fayetteville, Arkansas 72701
(501) 575-4270 or 575-2855

California
Mr. Mark Linder
California Foundation for
Agriculture in the Classroom
1601 Exposition Boulevard
Sacramento, California 95815
(916) 924-4380

Colorado
Ms. Helen Davis
Colorado Department of
Agriculture
1525 Sherman Street
Denver, Colorado 80203
(303) 866-3561

Connecticut
Ms. Fifi Scoutopoulos,
Chairperson
Windham County Conservation
District
P.O. Box 112
Brooklyn, Connecticut 06234
(203) 774-0224

Mr. David Nisely
Department of Agriculture
165 Capital Avenue, Room 234
Hartford, Connecticut 06106
(203) 566-3619 or 3671 or 4845

Delaware
Mr. Sherman Stevenson
Delaware Farm Bureau
233 South Dupont Highway
Camden-Wyoming, Delaware
19934
(302) 697-3183

Florida
Ms. Jodi Chase
Florida Department of
Agriculture and Consumer
Service
LL-29 The Capitol
Tallahassee, Florida 32301
(904) 488-9780

Georgia
Ms. Louise Hill
Georgia Farm Bureau
1620 Bass Road
P.O. Box 7068
Macon, Georgia 31298
(912) 474-8411

Hawaii
Mr. Ken Kaihara
Vo-Tech Educational Specialist
Department of Education
941 Hind Iuka Drive, Room B24
Honolulu, Hawaii 96821
(808) 373-3477

Idaho
Mr. Rick Phillips
Idaho Department of Agriculture
P.O. Box 790
Boise, Idaho 83701
(208) 334-3240

Illinois
Ms. Ellen Culver
Illinois Farm Bureau
1701 Towanda Avenue
P.O. Box 2901
Bloomington, Illinois 61702-
2901
(309) 557-2219

Indiana
Mr. Robert M. Book
President, Indiana Institute of
Agriculture Food and Nutrition
101 West Washington Street
1320 E
Indianapolis, Indiana 46204
(317) 637-1600

Iowa
Ms. Sandy Teig
Iowa Department of Agriculture
Wallace Building
Des Moines, Iowa 50319
(515) 281-5952

Kansas
Ms. Becky Koch
124 Bluemont Hall
Kansas State University
Manhattan, Kansas 66506
(913) 532-7946
Ms. Mardelle Pringle
Route 1
Yates Center, Kansas 66783
(316) 625-2098

Kentucky
Ms. Patty Blankenship
Kentucky Farm Bureau
120 South Hubbard Lane
Louisville, Kentucky 40207
(502) 897-9481

Louisiana
Ms. Barbara Ruth
Louisiana Farm Bureau
Federation
P.O. Box 95004
Baton Rouge, Louisiana 70895-
9004
(504) 922-6200

Maine
Mr. Chaitanya York
Maine Department of
Agriculture, Food and Rural
Resources
State House, Station 28
Augusta, Maine 04333
(207) 289-3511

Maryland
Mr. Wayne A. Cawley, Jr.
Secretary of Agriculture
50 Harry S. Truman Parkway
Annapolis, Maryland 21401
(301) 545-2646

Massachusetts
Mr. Wayne Hipsley
211 Stockbridge Hall
University of Massachusetts
Amherst, Massachusetts 01003
(413) 545-2646 or 545-4645

Michigan
Dr. Eddie Moore
Michigan State University
Room 410
Agriculture Hall
East Lansing, Michigan 48824
(517) 355-6580

Ms. Julie Chamberlain
Michigan Farm Bureau
7373 W. Saginaw Highway
Lansing, Michigan 48909
(517) 323-7000

Minnesota
Mr. Alan Withers
Minnesota Department of
Agriculture
95 W. Plato Boulevard
St. Paul, Minnesota 55107
(612) 296-6688

Mississippi
Ms. Helen Jenkins
Mississippi Farm Bureau
P.O. Box 1972
Jackson, Mississippi 39205
(Street) 6310 I-55 N, Jackson,
MS 39211
(601) 957-3200

Missouri
Ms. Diane Olson
Missouri Farm Bureau
P.O. Box 658
Jefferson City, Missouri 65102
(314) 893-1400
Ms. Betty Jo Malone
4538 Palisades Park
Billings, Montana 59160
(406) 466-2597

Nebraska
Ms. Ellen M. Hellerich
NE Farm Bureau Federation
P.O. Box 80299
Lincoln, Nebraska 68501
(402) 471-4400 ext. 2002

Nevada
Mr. Ben Damonte
12945 Old Virginia Road
Reno, Nevada 89511
(702) 853-5696

New Hampshire
Ms. Susan Robertson
New Hampshire Farm Bureau
Federation
RD 10, Box 344-D
Concord, New Hampshire
03301
(603) 224-1934

New Jersey
Ms. Cindy K. Elfron
Coordinator of Agricultural
Development
State of New Jersey
Department of Agriculture
CN 330
Trenton, New Jersey 08625
(609) 292-8897 or 633-7463

New Mexico
Mr. E. G. Blanton
New Mexico Farm and
Livestock Bureau
421 N. Water
Las Cruces, New Mexico 88001
(505) 526-5521

New York
Ms. Betty Wolanyk
New York State College of
Agriculture and Life Sciences
Cornell University
24 Roberts Hall
Ithaca, New York 14853-5901
(607) 255-8122

North Carolina
Ms. Nancy E. Facey
North Carolina Farm Bureau
P.O. Box 27766
Raleigh, North Carolina 27611
(919) 782-1705

North Dakota
Ms. Kaye Ouanbeck
North Dakota Department of
Agriculture
State Capitol
Bismarck, North Dakota 58505
(701) 224-2231

Ohio
Ms. Judy Roush
Director of Ohio AITC
910 Ohio Departments Building
65 South Front Street
Columbus, Ohio 43266
(614) 466-3076

Oklahoma
Ms. JoDahl Theimer
Oklahoma Department of
Agriculture
2800 North Lincoln Boulevard
Oklahoma City, Oklahoma
73105
(405) 521-3868

Dr. Paul Czarnecki
Program Specialist
4-H Youth Department
Oklahoma State University
Stillwater, Oklahoma 74078
(405) 744-5392

Oregon
Ms. Kay Shidler
Agri-Business Council
8364 SW Nimbus Avenue
Beaverton, Oregon 97005
(503) 627-0860

Ms. Loydee Granger
11525 Bursell Road
Dallas, Oregon 97338
(503) 838-3250

Pennsylvania
Ms. Carolyn Holleran
PA Council on Economic
Education
2900 St. Lawrence Ave
Reading, Pennsylvania 19606
(215) 779-7111

Mr. Fred Kerr
Pennsylvania Farmers
Association
Box 736
Camp Hill, Pennsylvania 17011
(717) 761-2740

Rhode Island
Ms. Carol Stamp
219 Cornstock Parkway
Cranston, Rhode Island 02920
(401) 942-7593

South Carolina
Ms. Lynn Hultzger
915 Rutledge Building
South Carolina Department of
Education
Columbia, South Carolina
29200
(803) 734-8433

South Dakota
Ms. Gail Brock
SD Farm Bureau
P.O. Box 1426
Huron, South Dakota 57350
(605) 353-6731

Tennessee
Mr. Bobby Beets
Tennessee Farm Bureau
Box 313
Columbia, Tennessee 39401
(615) 388-7872

Utah
Mr. El Shaffer
Information Specialist
Utah Department of Agriculture
350 North Redwood Road
Salt Lake City, Utah 84116
(801) 533-4104

Vermont
Dr. Gerald Fuller
University of Vermont
Agricultural Engineering Building
Burlington, Vermont 05405-0004
(802) 656-2001
Ms. Megan Camp
Shelburne Farms
Shelburne, Vermont 05482
(802) 985-8686

Virginia
Ms. Florence Fisackerly
Women and Young Farmers Department
Virginia Farm Bureau Federation
P.O. Box 27552
Richmond, Virginia 23261
(804) 788-1234

Washington
Ms. Julie Sandberg
Washington State Department of
Agriculture
406 General Administration Building
AX-41
Olympia, Washington 98504
(206) 586-1427

West Virginia
Mr. William Aiken
West Virginia Farm Bureau
Route 3, Box 156-A
Buckhannon, West Virginia 26201
(304) 472-2080

Wisconsin
Ag in the Classroom
Wisconsin Farm Bureau
P.O. Box 5550
7010 Mineral Point Road
Madison, Wisconsin 53705
(608) 833-8070

Wyoming
Mr. Gene Pexton
Braae Road, Route 6
Douglas, Wyoming 82633
(307) 358-5828

Guam
Dr. R. Muniappan
College of Agriculture and Life Sciences
University of Guam
Mangilao, Guam 96923
(617) 734-3113

Virgin Islands
Mr. Eric L. Bough
Assistant Commissioner
Department of Economic Development
and Agriculture
St. Croix, Virgin Islands 00850
(809) 778-0991

Ag in the Classroom Notes
Room 317-A, Administration Bldg.
U.S. Department of Agriculture
Washington, D.C. 20250-2200

To stop mailing or to change
your address send mailing
label to above address